



## Modified Barium Swallow Study/Videofluoroscopy

*BQIS Fact Sheets provide a general overview on topics important to supporting an individual's health and safety and to improving their quality of life. This document provides general information on the topic and is not intended to replace team assessment, decision-making, or medical advice. This is the fifth of ten Fact Sheets regarding aspiration prevention.*

### Intended Outcomes

Readers will learn the definition and process of a videofluoroscopy or modified barium swallow study, items to bring to the study, and why an individual would be referred for such a study.

### Definitions

**Aspiration:** Passage of food, liquid, or material through the vocal folds.

**Penetration:** Food, liquid, or material that reaches but does not pass through the vocal folds.

**Videofluoroscopy (VFS) or Modified Barium Swallow Study (MBSS):** A moving X-ray study that is useful in evaluating how food/liquid moves from the mouth to the esophagus. A physician orders this type of test to evaluate, diagnose, and treat specific swallowing problems.

**Vocal Folds/Vocal Cords:** Fold-like soft tissue that is the main vibrating component of the larynx.

### Facts

- A VFS or MBSS is recommended for people with suspected swallowing disorders in order to rule out aspiration or airway obstruction. This test is often suggested because of signs noticed in the clinical (bedside or tableside) evaluation. Clinical signs of swallowing dysfunction/problems include: coughing, choking, gagging, wet vocal quality, color changes, congestion, weight loss, and/or failure to thrive.
- VFS and MBSS allow the professional to actually see material being swallowed and provide information that cannot be obtained from a clinical (bedside or tableside) evaluation of the individual.
- VFS and MBSS show where the swallowing difficulty is occurring, how changes in positioning and consistency of food affect swallowing, and if the individual is penetrating or aspirating food and/or liquids. Specific swallowing guidelines and treatment techniques can be developed from the obtained information.
- A MBSS or VFS takes place in the radiology department of a hospital.



- A team of specialists performs the MBSS or VFS:
  - **A Speech-Language Pathologist** specializing in dysphagia coordinates the event and decides the course of actions to take during the process.
  - **A Radiologist** operates the X-ray equipment and aids in interpreting results.
  - **A Radiology Technician** is also present to help set up the room and aid with equipment.

### Recommended Actions and Prevention Strategies

1. If applicable, take all adaptive equipment to the VFS or MBSS that is usually used during mealtime (i.e. small bowled spoon, nose cups, mealtime seating equipment, etc.).
2. Staff familiar to the individual should accompany them to the study.
3. Take any foods that the individual is known to have problems tolerating.
4. Use adaptive equipment as ordered.
5. Position the individual according to his/her individual plan.
6. Provide diet texture and fluid consistency as ordered.
7. Help to explain the procedure to the person.
8. Be reassuring to the person before, during, and after the study.



### Learning Assessment

The following questions can be used to verify a person's competency regarding the material contained in this Fact Sheet:

1. Videofluoroscopy is:
  - A. A swallow evaluation that occurs at bedside or tableside in the individual's home
  - B. An X-ray that looks at the effects of aspiration on the individual's lungs
  - C. A moving X-ray study that is useful in evaluating how food/liquid moves from the mouth to the esophagus
  - D. A static X-ray study that is useful in evaluating how food/liquid moves from the mouth to the esophagus.
2. True or False: A MBSS or VFS occurs at your local hospital in the radiology department.
3. What specialist will be present during the MBS/VFS?
  - A. Radiologist
  - B. Radiology technician
  - C. Speech pathologist
  - D. All of the above
4. True or False: Adaptive equipment and foods that are known to cause difficulties should not be brought to the MBSS/VFS.
5. What are some signs or symptoms that may indicate the need for an MBSS/VFS?
  - A. Giggling
  - B. Coughing
  - C. Weight loss
  - D. Wet vocal quality
  - E. B, C, and D



### References

Video Fluoroscopic Swallowing Exam (VFSE). RadiologyInfo.org. Retrieved 07/20/2015 from <http://www.radiologyinfo.org/en/info.cfm?pg=modbariumswallow>.

Videofluoroscopic swallowing study (VFSS). American Speech-Language-Hearing Association. Retrieved 07/20/2015 from <http://www.asha.org/public/speech/swallowing/Videofluoroscopic-Swallowing-Study/>.

### Related Resources

Aspiration Prevention Series Fact Sheets: *Food Texture and Fluid Consistency Modification, Management of Constipation, Management of Oral Health, Dysphagia, Management of Gastroesophageal Reflux Disease (GERD), Positioning, Management of Residuals, Feeding Tubes and Feeding/Medication Administration Options, and Choice Considerations Relevant to the Use of Enteral Nutrition*

### Learning Assessment Answers

1. C
2. True
3. D
4. False
5. E